WEST

Generate Collection Print

L1: Entry 1 of 2 File: EPAB May 30, 1984

PUB-NO: DE003240643A1
DOCUMENT-IDENTIFIER: DE 3240643 A1
TITLE: Production of conductor track coatings and conductive hole wall coatings on or in circuit boards

PUBN-DATE: May 30, 1984

INVENTOR-INFORMATION:

NAME	COUNTRY
TOLLS, ELMAR DR	DE
SCHNEIDER, EHRENHARD	DE
PLATZEN, ROLF	DE

ASSIGNEE-INFORMATION:

NAME	COUNTRY
LPW CHEMIE GMBH	DE

APPL-NO: DE03240643
APPL-DATE: November 4, 1982

PRIORITY-DATA: DE03240643A (November 4, 1982)

US-CL-CURRENT: 205/164; 205/920
INT-CL (IPC): C25D 7/00; C25D 3/38
EUR-CL (EPC): C25D003/38

ABSTRACT:

CHG DATE=19990617 STATUS=O> A copper bath, known in connection with the production of bright copper precipitates, of the composition 10-50 g/l of copper as +2-valent ions, 20-220 g/l of sulphuric acid and 1-200 mg/l of chloric acid is used for the electrolytic production of circuit board coatings and conductive hole wall coatings in circuit boards having holes. The copper bath additionally contains polyglycol and/or nonionic wetting agents and organic thio compounds having water-solubilising groups, but is free of planarisers. This is carried out at a temperature of more than 30 DEG C, preferably about 40 DEG C, and the current density is maintained in the range 5-15 A/dm<2>.

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End of Result Set

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L1: Entry 2 of 2 File: DWPI May 30, 1984

DERWENT-ACC-NO: 1984-140962
DERWENT-WEEK: 198423

TITLE: Copper electroplating printed circuit board contg. through-holes - from bath contg. added polyglycol or nonionic wetting agent and organic thio cpd. operated at high temp. and current density

INVENTOR: PLATZE, R; SCHNEIDER, E ; TOLLS, E

PATENT-ASSIGNEE:

ASSIGNEE	CODE
LPW-CHEMIE GMBH	LPWCN

PRIORITY-DATA: 1982DE-3240643 (November 4, 1982)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 3240643 A	May 30, 1984		008	
DE 3240643 C	January 21, 1988		000	

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
DE 3240643A	November 4, 1982	1982DE-3240643	

INT-CL (IPC): C25D 3/38; C25D 7/00

ABSTRACTED-PUB-NO: DE 3240643A
BASIC-ABSTRACT:

In using a standard bright Cu plating bath contg. 10-50 g/l cupric ions, 20-200 g/l H2SO4 and 1-200 mg/l chloride ions for electroplating printed circuit boards contg. through-holes, the plating bath additionally comprises polyglycol or nonionic wetting agents and organic thio-cpds. contg. water-solubilising gps. but is free from levelling agents. Plating takes place above 30(40) deg.C and current density is kept at 5-15 A/sq.dm.

On increasing the temp. and average current density, plating time is reduced, e.g. to 20 min. for applying a 30 mu-thick layer. A good layer thickness distribution of hole wall to surface is achieved. The Cu layer has high ductility.
ABSTRACTED-PUB-NO:

DE 3240643C
EQUIVALENT-ABSTRACTS:

In the prodn. of conductor plates drilled with holes a smooth copper coating of the plates is achieved by using a copper bath free from levels and contg. 10-50 g/l Cu as divalent ions, 20-220 g/l sulphuric acid, 1-220 mg/l chloride ions, polyglycol or nonionic wetting agents and organic thio cpds. with gps. making them water soluble and working at temps. over 30(40) deg.C and with current density 5-15 A/dm2.

ADVANTAGE - Copper is deposited smoothly and layer has high ductility.

(3pp)

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: COPPER ELECTROPLATING PRINT CIRCUIT BOARD CONTAIN THROUGH HOLE BATH CONTAIN ADD POLYGLYCOL NONIONIC WET AGENT ORGANIC THIO COMPOUND OPERATE HIGH TEMPERATURE CURRENT DENSITY

DERWENT-CLASS: A97 L03 M11 V04

CPI-CODES: A05-H01; A12-E07A; A12-W12D; L03-H04E3; M11-A03;

EPI-CODES: V04-R02; V04-R05;

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1714S; 1759S ; 5214U

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:
Key Serials: 0011 0013 0213 0229 0231 1279 1282 1581 2214 2481 2498 2585 3258 2740 3315

Multipunch Codes: 014 028 03- 04- 147 226 308 309 331 336 441 466 471 50& 53& 575 583 589 623 627 628 651 678 688 720 723

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C1984-059542

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> s de3240643/pn
L1            1 DE3240643/PN

=> d all

L1   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2003 ACS
AN   1984:618590  CAPLUS
DN   101:218590
TI   Conductive strip coatings and conductive perforation wall coatings on or
     in circuit boards
IN   Tolls, Elmar; Schneider, Ehrenhard; Platzen, Rolf
PA   LPW-Chemie G.m.b.H., Fed. Rep. Ger.
SO   Ger. Offen., 8 pp.
     CODEN: GWXXBX
DT   Patent
LA   German
IC   C25D007-00; C25D003-38
CC   72-8 (Electrochemistry)
     Section cross-reference(s): 76
FAN.CNT 1
     PATENT NO.        KIND  DATE           APPLICATION NO.   DATE
     ---------------   ----  --------       ---------------   --------
PI   DE 3240643         A1   19840530       DE 1982-3240643   19821104 <--
     DE 3240643         C2   19880107
PRAI DE 1982-3240643         19821104
AB   A well-known Cu electroplating bath for the prodn. of bright Cu
     electroplates consists of Cu (as Cu2+) 10-50, H2SO4 20-220 g/L, and Cl-
     1-200 mg/L and is used for the manuf. of conductive strip coatings and
     conductive perforation wall coatings. The Cu electroplating bath addnl.
     contains polyglycol or nonionic wetting agent and org. sulfo compds. with
     groups rendering them water-sol., but is free of leveling agents. It is
     used at a temp. of >30.degree. (preferably 40.degree.), and the c.d. is
     maintained at 5-15 A/dm2. In an example, an epoxide conductive strip
     reinforced with glass fibers is drilled and is electroplated in a bath of
     the following compn.: Cu sulfate 80, H2SO4 200, polyglycol (av. mol. wt.
     12,000) 2 g/L, Cl- 50, and N,N-diethyldithiocarbamic acid
     (.omega.-sulfopropyl) ester Na salt 10 mg/L. At a temp. of 20.degree.,
     for 20 min at a c.d. of 7.5 A/dm2, a layer thickness ratio of penetration
     wall/surface of 0.75:1 was ascertained. If one carries out the
     electroplating at 40.degree. under otherwise equal conditions, then a
     layer thickness ratio of 0.92:1 is obtained.
ST   copper electroplating printed circuit; perforation wall coating circuit
     board
IT   Polyoxyalkylenes
     RL: USES (Uses)
        (in electroplating, of copper on conductive strips and perforation
        walls of circuit boards)
IT   Electric circuits
        (printed, boards, copper electroplating on)
IT   7440-50-8, uses and miscellaneous
     RL: PEP (Physical, engineering or chemical process); PROC (Process)
        (electroplating of, on conductive strip and perforation walls of
        circuit boards)
IT   16887-00-6, uses and miscellaneous
     RL: USES (Uses)
        (in copper electroplating on conductive strip and perforation walls of
        circuit boards)
IT   591-08-2D, reaction product with methylphenylthiourea and propane sultone
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1120-71-4D, reaction product with acetylthiourea and methylphenylthiourea
4104-75-0D, reaction product with acetylthiourea and propane sultone
6142-42-3
RL: PRP (Properties)
(in electroplating, of copper on conductive strips and perforation walls of circuit boards)

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